

1. KIRSH, A. K.
2. USSR (600)
4. Steam Boilers
7. Heating the condensate with the escape gases of a boiler.
Rab. energ. 2 No. 11, 1952
9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. KIKSH, A. K.
2. USSR (600)
4. Steam Turbines
7. Performance of an ejector.
Rab. energ. 2 No. 11, 1952

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. KIRSH, A. K.
2. USSR (600)
4. Steam Turbines
7. Allowable maximum quantity of steam taken from an uncontrolled bleeder of a turbine.
Rab. energ. 2 No. 11, 1952

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. KIRSH, A. K.
2. USSR (600)
4. Steam Turbines
7. Lowering the capacity of a turbine by removing one diaphragm.
Rab. energ. 2 No. 11, 1952

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953. Unclassified.

AD P - 3088

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 22/29

Author : Kirsh, A. K., Eng.

Title : Extraction of steam from the governor-controlled stage of the turbine

Periodical : Energetik,³ 7, 29-30, J1 1955

Abstract : The author discusses the problem of steam extraction from a 3000-kv reaction bleeder turbine of the VVS type, and in particular the quantity of steam possible to extract without diminishing the nominal load. This particular type of turbine has a regulating stage and 32 reaction stages.

Institution : None

Submitted : No date

AID P - 3366

Subject : USSR/Electricity
Card 1/1 Pub. 29 - 24/27
Author : Kirsh, A. K.
Title : Using turbine pumps in continuous operation
Periodical : Energetik, 9, 38-39, S 1955
Abstract : Replying to a question by a reader, the author presents a brief calculation of the efficiency of using turbine pumps in continuous operation. One diagram.
Institution : None
Submitted : No date

AID P - 5111

Subject : USSR/Engineering
Card 1/1 Pub. 110-a - 14/18
Author : Kirsh, A. K., Eng.
Title : Efficiency of the steam-air cooling mixture between the
condenser and the ejector. (Chronicle)
Periodical : Teploenergetika, 10, 60-61, 0 1956
Abstract : The author describes the testing of the air-drier and
condenser of a turbine, performed in 1955. The results
of the tests show that the efficiency of the air-drier
is low.
Institution : None
Submitted : No date

KIRSH, A.K.

KIRSH, A.K., inzh.

~~_____~~ Soviet turbines of high and medium parameters. Energetik 5 no.11:
14-20 N '57. (MIRA 10:12)

(Turbines)

AUTHOR: Kirsh, A.K. 91-58-5-32/35

TITLE: On the Admissible Working Conditions of Steam Turbines (O dopustimyykh rezhimakh raboty parovoy turbiny)

PERIODICAL: Energetik, 1958, Nr 5, pp 37-38 (USSR)

ABSTRACT: In the article, the highest admissible working conditions regarding temperature, steam pressure, etc, of a steam turbine of the firm AEG are given. The turbine works with steam of 3 ata, an a-c generator of 650 kw and a d-c generator of 300 kw, and 3,000 rpm.

AVAILABLE: Library of Congress

Card 1/1 1. Steam turbines - Operation

KIRSH, A.K.

Determining the specific consumption of steam in turbines.
Energetik 6 no. 1:38-39 Ja '58. (MIRA 11:8)
(Steam turbines)

SOV/91-58-2-30/31

AUTHOR: Kirsh, A.K.

TITLE: On the Lowest Vacuum Limit Admissible in
the Turbine (O dopustimom nizshem vakuumе
v turbine)

PERIODICAL: Energetik, 1958, Nr 2, p 38 (USSR)

ABSTRACT: G.F. Viktinskiy from Mikhaylovskiy Refractory Plant (Smy Oblast)
asks the following question: what is the
lasting operational vacuum permitted for
Wortington condensation turbine of 6,500 kW
capacity?

Card 1/1

KOINOVALOV, G.M., inzh.; KIRSH, A.K., inzh.; MARKIN, V.P., inzh.

Economic aspects of the type VKT-100 steam turbine built by the
Kharkov works. Teploenergetika ? no.3:73-80 Mr '60.
(MIRA 13:5)

1. Gosudarstvennyy trest po organizatsii i ratsionalizatsii
elektrostantsiy i Dneproenergo.
(Steam turbines)

KIRSH, A.K.

Concerning the operation of turbines with decreased steam
parameters. Energetik 9 no.6:33-34 Je '61. (MIRA 16:7)

(Steam turbines)

S/096/62/000/006/006/011
E194/E454

AUTHORS: Kirsh, A.K., Engineer, Konovalov, G.M., Engineer
TITLE: Determination of the efficiency of individual groups
of stages when testing steam turbines

PERIODICAL: Teploenergetika, no.6, 1962, 35-37

TEXT: In determining the efficiency of individual cylinders or of groups of stages of steam turbines it is easy enough to measure pressures at bleed or tapping points but temperature measurements are more difficult partly because the steam flow is not uniform. To determine true steam temperatures many thermometer pockets are required and all regulating valves must be fully open to avoid temperature drops. Thermometer pockets are commonly inserted in steam tapping lines 1 to 2 m from the turbine casing but special tests have shown that efficiencies determined from temperatures so measured were systematically in error because the temperature in the line beyond the tapping point is higher than that immediately beyond the stage, mainly because of steam that leaks through the radial clearance round the shrouding which is nearly at the temperature of stage inlet

Card 1/2

Determination of the efficiency ... S/096/62/000/006/006/011
E194/E454

steam. In one case this difference was nearly 13°C with rated steam flow and it could be higher when little steam is being tapped particularly when the reaction is high. In one case this error caused the stage efficiency to be overestimated by 8.5%. Accordingly, the steam temperature before and after the group of stages being investigated should be measured by at least three or four thermometers installed in pockets within the actual steam flow path of the turbine immediately before the nozzles of the stage beyond that being measured. The steam sampling method, which is based on constancy of enthalpy of steam on throttling, can also be used to determine the enthalpy in regulating stage chambers and in the first tapping. The method is described: it is compared with the one previously described and agreement, which corresponded to a temperature difference of about $\pm 1.5^{\circ}\text{C}$, was considered good. This indicates that the steam sampling method is promising but it still requires further study and development. There are 3 figures and 2 tables.

ASSOCIATION: ORGRES

Card 2/2

KIRSH, A.K., inzh.

Deaeration of steam turbine condensers. Teploenergetika 9
no.10:35-40 0 '62. (MIRA 15:9)

1. Gosudarstvennyy trest po organizatsii i ratsionalizatsii
rayonnykh elektrostantsiy i setey.
(Condensers (Steam))

KERSH, A.K., brigadnyy inzhener

Regeneration network of the VPT-50 turbine. Energetik. 13 no.7:40
Jl '65. (MIRA 18:8)

1. Gosudarstvennyy treest po organizatsii i ratsionalizatsii rayonnykh
elektrostantsiy i setey.

MUKHIN, Grigoriy Ivanovich; DAVTYAN, Sokrat Khachaturovich; KIRSH, Boris Aleksandrovich; OSIPOVA, Agniya Lazarevna; MADERA, E.S., redaktor; GONCHAROV, I.A., tekhnicheskiiy redaktor.

[Problems of mechanizing and organizing work in the drilling of oil and gas wells] Voprosy mekhanizatsii i organizatsii truda pri bure-nii neftianyykh i gazovykh skvashin. Baku, Azerbaidzhanskoe gos.isd-vo neftianoi i nauchno-tekhnicheskoi lit-ry, 1955, 182 p. (MLRA 9:4)
(Oil well drilling) (Gas, Natural)

76-32-5-26/47

AUTHOR: Kirsh, I. V.

TITLE: X-Ray Investigation of Binary Liquid Systems With an Upper Critical Solution Temperature (K voprosu o rentgenografi-cheskom issledovanii dvoynykh zhidkikh sistem, imeyushchikh verkhnyuyu kriticheskuyu temperaturu)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 5, pp. 1116-1121 (USSR)

ABSTRACT: Already Krishnamurti and Mayer separated liquid solutions into real solutions and solutions of the emulsion type, which was proved by the investigations by V. I. Danilov et al. (Ref 1). In the present paper, in continuation of the investigation of the solution phenol-water, the solution carbon disulfide-methanol is investigated as the critical solution temperature is only 40,5°C. Monochromatized molybdenum rays are used with a collimation corresponding to the results by K. L. Yudowitch (Ref 7) being carried out. A solution with a concentration of 1 mol of carbon disulfide per 10 mols of methanol was investigated within a temperature interval in

Card 1/3

76-32-5-26/47

X-Ray Investigation of Binary Liquid Systems With an Upper Critical Solution Temperature

which the solution did not separate; the x-ray investigations were carried out at usual and small angles and the method of experiments was the same as the one already described. From the experimental results can be seen that in the case of a temperature rise the second and third maximum of the observed maxima of the intensity curves of x-ray scattering of carbon disulfide decrease; this effect can be observed analogously with methanol. In the small-angle determinations according to A. I. Kitaygorodskiy the substances are divided into two groups corresponding to the particle distribution; in connection herewith the equation of intensity by Yudovich (Refs 11, 12) is mentioned. The curves of the scattering intensity of x-rays at small angles is given for carbon disulfide-methanol at 12 and 63°C, with five maxima occurring; it is concluded that the system in this temperature interval has a dense packing and by means of the equation by Yudovich (Ref 11) assuming a spherical fluctuation form a table of particle dimensions is compiled. Finally the author thanks N. V. Mokhov for his advice. There are 7 figures, 1 table, and 12 references, 9 of which are Soviet.

Card 2/3

KIRSH, I. V., Cand of Phys-Math Sci -- (diss) "X-Ray Investigation of
Binary Liquid Systems Having a Surface Critical Temperature ~~XX~~ Melting
Point for Both the Common and Minor Points of Heat Dissipation,"
Dnepropetrovsk, 1959, 12 pp (Dnepropetrovsk State Univ) (KL, 2-60, 110)

S/076/60/034/007/025/042/XX
B004/2068

AUTHORS: Mokhov, N. V. and Kirsh, I. V.

TITLE: X-Ray Study of the Change of the Degree of Concentration
Variation in the System Carbon Disulfide - Methyl Alcohol
as a Function of Temperature

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 7,
pp. 1553-1555

TEXT: The X-ray study of solutions with an upper critical solution temperature (Refs.1, 2) showed structural inhomogeneities in the neighborhood of critical temperature. This must lead to an uneven distribution of electron density. Therefore, the intensity of this concentration variation should be established by small-angle X-ray scattering. For this purpose, the binary liquid system carbon disulfide - methyl alcohol with a molar ratio of 1 : 5 (32% by weight of CS₂) was investigated at 12°, 21°, 55°, and 63°C. Because of the high absorption capacity of CS₂, molybdenum radiation was used. Distinct periodic maxima were found on the interference curves of small-angle X-ray scattering. These maxima shifted toward greater angles
Card 1/2

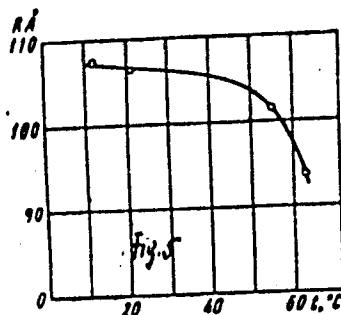
X-Ray Study of the Change of the Degree of
Concentration Variation in the System Carbon
Disulfide - Methyl Alcohol as a Function of
Temperature

S/076/60/034/007/025/042/XX
B004/B068

with increasing temperature. This results in reduced variations at higher temperatures. The curve represented in Fig. 5 was plotted from the calculated variation intensities. With increasing distance from the critical temperature, variation decreased rapidly. There are 5 figures, 1 table, and 4 references: 2 Soviet and 2 US.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet
(Dnepropetrovsk State University)

SUBMITTED: October 12, 1958



Card 2/2

KIRSH, I. V.

3b

PHASE I BOOK EXPLOITATION SOV/5469

Soveschaniye po kriticheskim yavleniyam i flyuktuatsiyam v rastvorakh. Moscow, 1960.

Kriticheskiye yavleniya i flyuktuatsii v rastvorakh; trudy soveshchaniya, yanvar' 1960 g. (Critical Phenomena and Fluctuations in Solutions; Transactions of the Conference, January 1960) Moscow, Izd-vo AN SSSR, 1960. 190 p. 2,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova. Khimicheskii fakul'tet.

Responsible Ed.: M. I. Shakhparonov, Doctor of Chemical Sciences, Professor; Ed. of Publishing House: E. S. Dragunov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This collection of articles is intended for scientific personnel concerned with chemistry, physics, and heat power engineering.

Card 1/9

30

Critical Phenomena and Fluctuations

SOV/5469

COVERPAGE: The book contains 24 of the 26 reports read at the Conference on Critical Phenomena and Fluctuations in Solutions organized by the Chemical Division of Moscow State University, January 26-28, 1960. The reports contain results of investigations carried out in recent years by Soviet physicists, chemists, and heat power engineers. The Organizing Committee of the Conference was composed of Professor Kh. I. Amirkhanov, A. Z. Golik, I. R. Krichevskiy (Chairman), V. K. Semenchenko, A. V. Storonkin, I. Z. Fisher, and M. I. Shakhparonov (Deputy Chairman). References accompany individual articles.

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Amirkhanov, Kh. I., A. M. Kerimov, and B. O. Alibekov [Laboratoriya molekulyarnoy fiziki, Dagestanskiy filial AN SSSR -- Laboratory of Molecular Physics, Dagestan Branch, AS USSR]. Thermophysical Properties of Matter at Critical Temperature

5

Card 2/9

30

Critical Phenomena and Fluctuations

SOV/5469

Akhadov, Ya. Yu., and M. I. Shakhmurov [Laboratoriya fiziko-khimii rastvorov, Khimicheskyy fakul'tet, Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova -- Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Dielectric Properties of Solutions in a Superhigh Frequency Field and Concentration Fluctuations

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Critical Phenomena and Fluctuations

SOV/5469

Zatsepina, L. P., and M. I. Shakhparonov [Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Rayleigh Light Scattering in Nitrobenzene -- Cyclohexane and Ethyl Alcohol -
- Diethylamine Solutions

32

Kasimov, R. M., and M. I. Shakhparonov [Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Dielectric Properties of Solutions in Electromagnetic Fields of the Millimetric Band and Concentration Fluctuations

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Krichevskiy, I. R., and N. Ye. Khazanova [Laboratoriya vysokikh davleniy. GIAP -- Laboratory of High-Pressure [Studies], Moscow State Design and Planning Scientific Research Institute of the Nitrogen Industry]. Diffusion of Liquid and Gaseous Solutions in the Critical Region

45

Krichevskiy, I. R., and Yu. V. Tsekhanskaya [Laboratory of

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Critical Phenomena and Fluctuations

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High-Pressure [Studies], GIAP]. Kinetics of Heterogeneous Processes in the Critical Region

54

Krichovskiy, I. R., N. Ye. Khazarova, and L. R. Linshits [Laboratory of High Pressure [Studies], GIAP]. Liquid-Vapor Equilibrium in the Critical Region of Liquid-System Stratification

61

Lomova, N. N., and M. I. Shakhparonov [Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Permittivity and Molecular Structure of Solutions

73

Lanshina, L. V., and M. I. Shakhparonov [Laboratory of the Physical Chemistry of Solutions, Chemistry Division, Moscow State University imeni M. V. Lomonosov]. Thin Structure of the Line of Rayleigh Light Scattering in Solutions

77

Mokhov, N. V., and Ya. M. Labkovskiy [Kafedra eksperimental'noy fiziki, Dnepropetrovskiy gosudarstvennyy universitet -- Depart-

Card 5/9

30

Critical Phenomena and Fluctuations

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ment of Experimental Physics, Dnepropetrovsk State University].
Investigation of Density Fluctuations in Ether and Benzene
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81

Melchov, N. V., and I. V. Kirsh [Department of Experimental
Physics, Dnepropetrovsk State University] Variation in the
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89

Nozdrev, V. P., B. I. Kal'yanov and M. G. Shirkovich [Moskov-
skiy oblastnoy pedagogicheskoy institut -- Pedagogical Insti-
tute of the Moscow Oblast]. Hypersonic Investigation in
Organic Liquids at Constant Density in the Vicinity of the
Critical State

93

Rott, L. A. [Minskiy lesotekhnicheskoy institut -- Minsk
Forestry Engineering Institute]. Concerning the Diffusion in
the Critical Stratification Region

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30

Critical Phenomena and Fluctuations

SOV/5469

Roshchina, G. P. [Laboratoriya molekulyarnoy fiziki, Fizicheskiy fakul'tet, Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko -- Laboratory of Molecular Physics, Division of Physics, Kiyev State University imeni T. G. Shevchenko] Investigation of Fluctuations in Solutions by the Method of Light Scattering

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Skripov, V. P. [Laboratoriya molekulyarnoy fiziki, Ural'skiy politekhnicheskiy institut im. S. M. Kirova -- Laboratory of Molecular Physics, Ural Polytechnic Institute imeni S. M. Kirov]. Special Structural Features of Matter in the Vicinity of the Critical Point and Transfer Phenomena

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Skripov, V. P., and Yu. D. Kolpakov [Laboratory of Molecular Physics, Ural Polytechnic Institute imeni S. M. Kirov, and the Laboratoriya teplofiziki, Ural'skiy filial AN SSSR -- Thermophysics Laboratory, Ural Branch, AS USSR]. Light Scattering in Carbon Dioxide along Pre- and Post-Critical Isotherms

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Smirnov, B. A. [Institut neftekhimicheskogo sinteza AN SSSR -- Card 7/9]

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Critical Phenomena and Fluctuations

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russian State University (Minsk)] Correlation Analysis of the
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Physics, Physics Division, Kiev State University imeni T. G.
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Critical Phenomena and Fluctuations

SOV/5469

Shimanskaya, Ye. T., Yu. I. Shimanskiy, and A. Z. Golik [Laboratory of Molecular Physics, Division of Physics, Kiev State University imeni T. G. Shevchenko]. Investigation of the Critical State of Pure Substances by Tepler's Method

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Resolution of the Conference on Critical Phenomena and Fluctuations in Solutions

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AVAILABLE: Library of Congress (QD545.S73)

Card 9/9

JP/dfk/jw
10-28-61

S/058/61/000/009/022/050
A001/A101

AUTHORS: Mokhov, N.V., Kirsh, I.V.

TITLE: Changes in the range of concentration fluctuations in dependence on temperature and concentration in binary liquid systems having the upper critical dissolution temperature

PERIODICAL: Referativnyy zhurnal. Fizika, no. 9, 1961, 167, abstract 9D21 (V sb. "Kritich. yavleniya i fluktuatsii v rastvorakh", Moscow, AN SSSR, 1960, 89 - 92)

TEXT: The authors obtained the curves of scattering of X-rays in the solutions: carbon bisulfide with methyl alcohol with 19 (I) and 32 (II) weight per cent of CS₂. I was investigated at 12 and 63°C; II - at 12, 21, 55 and 63°C; II - at 12, 21, 55 and 63°C. Scattering curves are characterized by a sharp fall-off at small angles and a number of peaks. The latter phenomenon is related to monodispersity of non-homogeneous regions. Dimensions R₀ of non-homogeneous regions depend on temperature. At 12°C for II, R = 107.4 Å. With temperature increasing up to 63°C, R decreases to 93.7 Å. A comparison of the range

Card 1/2

Changes in the range of concentration fluctuations ... S/058/61/000/009/022/050
A001/A101
of concentration fluctuations in I and II at temperatures equidistant from the
saturation temperature, shows that an increase of concentration entails a de-
crease in the range of fluctuations.

N. Andreyev

[Abstracter's note: Complete translation]

Card 2/2

KIRSH, L., AULIS, A.

Comparison of some methods used in quantitative determination of
morphine in a tincture of opium Apt.delo 7 no.6:53-58 H-D '58

(MIRA 11:12)

1. Iz kafedry tekhnologii galenovykh preparatov i farmatsevticheskoy
khimii (zav. - prof. N.Ya. Veyderpass) Tartuskogo universiteta.
(MORPHIUM)

KIRSH, L. A.

USSR/Pharmacology. Pharmacognosy. Toxicology - Medicinal Plants. T-5

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 71734

Author : Veiderpass, N.Ya., Kirsh, L.A.

Inst :

Title : The Study of Extractum Polygoni Hydropiperis.

Orig Pub : Zdravookhr. sov. estonii, Sb. 3, Tallin, est. gos isd.
1955, 201-212

Abstract : The study of extract of Polygoni hydropiperis showed that they contain essential oils, rutin, vitamin K, and glycosides. Alkaloids are absent. Aqueous and alcohol extracts contain the largest quantity of vitamin K. The aqueous extract also contains the glycoside.

Card 1/1

- 57 -

GENESIN, A.; KIRSH, V.

Labor productivity in plants operating ram impact machines. Metallurg
10 no.9:22-23 3 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii
proizvodstva i truda chernoy metallurgii.

L 21180-66 EWT(m)/EMP(j)/T DS/RM

ACC NR: AP6009876

SOURCE CODE: UR/0413/66/000/004/0069/0069

INVENTOR: Kirsh, Yu. E.

ORG: none

TITLE: Preparation of photosensitive polymers. Class 39, No. 178984

SOURCE: Izobreteniya, promyshlennyye obrasty, tovarnyye znaki, no. 4, 1966, 69

TOPIC TAGS: polymer, photosensitive polymer, polystyrene plastic, copolymer

ABSTRACT: This Author Certificate introduces a method of preparing photosensitive polymers. The method consists of heating polystyrene with maleic anhydride in an inert organic solvent and in the presence of aluminum chloride. [JK]

SUB CODE: 07/ EURN DATE: 13Aug63/ ATD PRESS: 1222

Card

1/2 BK

UDC: 678.744.3

SELEN, Y. P.; YATKOV, K. D.; KATKISH, A. F.

Electrochemical reaction in the presence of polyvinyl alcohol.
Dokl. Akad. Nauk SSSR, 1977, 241, 107. (USSR 1977)

1. Electrochemically initiated polymerization of acrylonitrile
in the presence of polyvinyl alcohol.

LYALIKOV, K.S.; KIRSH, Yu.E.; KOVALEVA, K.A.; AVGUSTINOVICH, N.P.

Sensitometry of light sensitive polymers. Zhur.nauch.i prikl.fot.
i kin. 10 no.3:200-206 My-Je '65.

(MIRA 18:11)

1. Leningradskiy institut kinoinzhenerov.

L 36961-66 EWT(m)/EWP(j) IJP(o) RM

ACC NR: AP6016934

(A)

SOURCE CODE: UR/0077/66/011/001/0023/0027

AUTHOR: Kirsh, Yu. E.

ORG: Leningrad Institute of Motion Picture Engineers (Leningradskiy institut kino-inzhenerov)

TITLE: Photosensitivity of phenolformaldehyde resins

SOURCE: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 11, no. 1, 1966, 23-27

TOPIC TAGS: photosensitivity, phenolformaldehyde, resin, methyl ethyl ketone, resorcinol

ABSTRACT: The author studies the sensitivity of phenolformaldehyde resins (resols) to light. The ratio of phenol to formaldehyde was 1:3. Tricresol and m-cresol were used in addition to phenol. Resorcin formaldehyde resin was produced after holding for 24 hours in a water-alcohol solution in the presence of CH_3COONa . Novolacs were also prepared from p-cresol, phenol, resorcin and formaldehyde in the presence of an acid catalyst. After the appropriate treatment (washing, drying, reprecipitation), solutions of the polymers were prepared in methyl ethyl ketone and films were applied to a quartz substrate. The photosensitivity of the films to ultraviolet rays was determined by exposing the film on the quartz side in the light of a DRS-250 lamp and "developing" the latent image in methyl ethyl ketone with ethyl alcohol (2:1) until any poly-

Card 1/2

UDC: 773.92

L 36961-66

ACC NR: AP6016934

mers which were not cross-linked were completely dissolved. An MII-4 interference microscope was used for measuring field thickness after drying. These measurements were used to determine the threshold exposure, i. e. the exposure required for cross-linking the field with the lowest measured thickness. The resultant data give threshold exposures (in $\text{cm}^2\text{w}^{-1}\text{sec}^{-1}$) of 0.19 for tricresolformaldehyde+2% diazide, 6 for phenolformaldehyde+2% diazide and 47 for resorcin formaldehyde+2% diazide. UV and IR absorption spectra are given for phenolformaldehyde resins before and after exposure to ultraviolet radiation. It was found that UV exposure shifts absorption of the film toward the longer wave region of the spectrum and a new maximum appears at 350 mμ. The experimental data indicate that the photosensitivity of resols is due to methyl groups in the benzene ring. In conclusion the authors thank K. S. Lyalikov for valuable advice during the work and K Kalninsh for measuring the IR spectra. Orig. art. has: 3 figures, 3 tables.

SUB CODE: 20/ SUBM DATE: 28Sep64/ ORIG REF: 009/ OTH REF: 010

Card 2/2 *llh*

REZNIKOV, A.N., doktor.tekhn.nauk, prof.; KUSHNER, I.S., assistant;
KIRSHBAUM, V.I., assistant

Geometrical analysis of round rotating cutting tools. Izv.
vys.ucheb.zav.; mashinost. no.7:201-213 '63. (MIRA 16:11)

1. Kuybyshevskiy politekhnicheskii institut.

KIRSHCHENYA, A.

Kok-Saghyz

High yield of seeds and roots from kok-saghyz. Kolkh. proizv. 12, No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952, UNCLASSIFIED

KIRSHENBAUM, Isidor, 1917-

~~XXXXXXXXXXXXXXXXXXXX~~
[Physical properties and analysis of heavy water] Tiazheleia voda;
fizicheskie svoistva i metody analiza. Perevod s angliiskogo. Moskva,
Izd-vo inostrannoi lit-ry, 1953. 437 p. (MLRA 6:12)
(Deuterium oxide)

OZERYANSKAYA, I.G.; YEVSEYEVA, L.M.; KIRSHENBAUM, I.M.

Clinical importance of some laboratory methods in the diagnosis
of Botkin's disease. Trudy LPMI 30:150-159 '63.

(MIRA 18:3)

1. Bol'nitsa imeni Botkina v Leningrade (glavnyy vrach M.M.
Figurina, nauchnyy rukovoditel' prof. Ye.S.Gurevich).

KIRTENBAUM, P. 1.

PA 4710

USSR/Petroleum - Well drilling
Drills - Oil well

Feb 1947

"The BS1-1400 Drilling Machine," P. L. Kirtenbaum,
2 pp

"Neftyanoye Khozyaystvo" Vol XXV, No 2

Brief description of a drill for holes up to 1400
meters deep, with drill pipes 6" in diameter, or
up to 2600 meters with 4" drill pipes. Schematic
diagram also given of the kinematic system of the
machine.

4710

Kirshenbaum, P.I.

KOTLYAROV, Aleksandr Mikhaylovich; IVANOV, Ye.M., redaktor; KIRSHENBAUM, P.I.,
redaktor; SVYATITSKAYA, K.P., vedushchiy redaktor; POLOSINA, A.S.,
tekhnicheskii redaktor

[Underground boring machine with hydraulic transformer] Podzemno-
burovoi stanok s gidravlicheskim preobrazovatelem. Moskva, Gos.
nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry. 1957. 61 p.
(Boring machinery) (MIRA 1957)

KIRSHENBAUM, P.I., insh.

Shorten the construction time and reduce the cost of building
and operating field compressor stations. Stroi. pred. neft. prom.
3 no.2:6-7 F '58. (MIRA 11:4)

(Compressors)

KIRSHENBAUM, Ya. B.

USSR/Engineering - Refractories,
Technology

June 72

"Sintering of High-Alumina Briquettes," D.N. Poluboyarinov, Ya. B. Kirshenbaum, Moscow Chem-Technol Inst Imeni D. I. Mendeleev

"Ogneupory" No 6, pp 243-251

Investigates technology of high-alumina briquettes at Shcherbino Refractory Plant, studying method and time of alumina grinding, dispersion deg of ground alumina used in briquette mass and firing temp sufficient for briquette sintering. Proper technology of sintered briquette-chamotte, made of

220741

mixt of commercial alumina and fire clay, is very important in manuf of mulite products since completeness of briquette sintering determines, to a great extent, quality of finished product.

220741

KIRSHENBAUM, Ya.S.
KIRSHENBAUM, Ya.S., starshiy mekhanik

Automatic level indicator for oil tanks. Neftianik 1 no.6:27-28
Je '56. (MIRA 10:12)

1. Odesskiy neftepererabatyvayushchiy zavod.
(Liquid level indicators)

22(0)

SOV/92-59-3-16/44

AUTHOR: Kirshenbaum, Ya. S., Engineer

TITLE: The Work of the Refinery Scientific Technical Society
(Rabota zavodskoy organizatsii NTO)

PERIODICAL: Neftyanik, 1959, Nr 3, p 17-18 (USSR)

ABSTRACT: Constructive suggestions from the technical personnel of the petroleum and gas industry assures the further development of this industry as foreseen by the Seven Year Plan. Efforts of the Scientific and Technical Society, organized at the Odessa refinery, are directed toward this goal. The Society, which consists of 85 members working in various sections, takes an active part in solving numerous problems of the refinery. In 1958 the Society successfully participated in the implementation of a number of measures taken to boost refinery yields. A modernized boiler of the A-7 Shukhov-Berlin type with an automatic combustion process and automatic water feed has been installed and put into operation. The vacuum unit has been remodeled to with-

Card 1/2

The Work of the Refinery (Cont.)

SOV/92-59-3-16/44

draw gasoline and diesel fuel components from the wide fraction directed to the cracking unit for further fractionation. The study of the mechanism of oxidation of petroleum bitumens has been carried out in collaboration with the Petroleum Institute of the Academy of Science of the USSR. The gas fractionation is being studied to obtain the ethylene required for the production of polyethylene. The Society also makes efforts to improve the skills of the technical personnel by organizing courses, lectures, excursions, disseminating technical information bulletins, etc. The 1959 program of the Scientific and Technical Society includes plans for a better utilization of caustic slops, a higher quality of oxidized petroleum bitumens, the installation of a pilot plant for fractionating gas yielding ethylene, etc. The personnel of the society will no doubt, help to overfulfill the 1959 production plan set by the government.

ASSOCIATION: Odesskiy NPZ(The Odessa Refinery)

Card 2/2

KIRSHENBAUM, Ya.S.

Heating viscous petroleum products by the jet mixing method.
Neftianik 5 no.9:15-16 8 '60. (MIRA 13:9)

1. Glavnyy energetik Odesskogo neftepererabatyvayushchego zavoda.
(Petroleum as fuel) (Heating)

KIRSHENBAUM, Ya.S., inzh.; KIRILYUK, G.M., inzh.

Modernization of A-7 Shukhov-Berlin boilers. Energetik 8 no. 10:19-
21 0 '60. (MIRA 14:1)

(Boilers)

KUTEYSHCHIKOV, G.H.; KIRSHENBAUM, Ya.S.

Experiment of placing small boilers under automatic control. Prom.
energ. 15 no.9:18-22 8 '60. (MIRA 13:10)
(Boilers) (Automatic control)

KIRSHENBAUM, Ya. S., inzh.

Use of a pneumatic controller for regulating the water level in
a boiler drum. Energetik 9 no.5:17-18 My '61. (MIRA 14:5)
(Boilers)
(Pneumatic control)

KIRSHENBAUM, Ya.S., inzh.; KIRILYUK, G.M., inzh.; KOSHEVOY, K.Z., inzh.

Modernization of the A-5 and A-7-type Shukhov-Berlin boilers.
Energetik 9 no.12:5-12 D '61. (MIRA 15:1)
(Boilers)

KIRSHENBLAT, Ya. D.

"A New Parasite of the Lungs in Rodents," Dokl. Ak Nauk SSSR, 23, No. 4, 1939.

Lab. Zoology of Invertebrates, Leningrad State Univ.

KIRSCHENBLAT, ^{Y.A.D.}~~T.D.~~

"Host - specificity of parasites." (p. 271) by T. D. Kirschenblat

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologii) Vol. XIV, No. 2, 1941

KIRSHENBLAT, Ya.D.

Parasites of Spalax leucodon Nordm. in Armenia [with summary in English]. Izv. AN Arm.SSR. Est.nauki no.2:73-80 '47. (MLRA 9:8)
(Armenia--Parasites) (Parasites--Rodentia)

KIRSHENBLAT, Ya.D.

New data on larval stages of tapeworms in rodents of Georgia.
Sob. AN Gruz. SSR 9 no. 4: 269-271 '48. (MLA 9:7)

1. Akademiya nauk Gruzinskey SSR, Zoologicheskii institut, Tbilisi.
Predstavlena deystvitel'nym chlenom Akademii F.A. Zaytsevyu.
(Georgia--Tapeworms) (Parasites--Rodentia)

KIRSHENBLAT, Ya. D.

"Zondek's New Reaction for Determining Pregnancy with the Aid of Infant
Female Rats," Priroda, No. 3, 1949.

KIRSHENBLAT, Ya. D.

"Obtaining Groundlings for Hormonal Diagnosis of Pregnancy,"
Priroda, No. 4, 1949.

KIRSHENBLAF, YA. D.

21624. KIRSHENBLAF, Ya. D. Materialy k gol'mintofayne arystunov Gruzii.
Trudy Zool. in-ta (Akad. nauk Gruz SSR) t. VIII, 1949, s. 317-39.
Resyume na gruz. yaz. - Bibliogr: 11 nazv.

SC: Letopis' Zhurnal'nykh Statey, No. 19, Moskva, 1949

KIRSHENBLAT, YA. D.

29274 Deystviye gonadotropnykh gormonov cheloveka na samok ryb. Priroda, 1949, No 9, s. 75-76. - Bibliogr: 10 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

KIRSHENBLAT, YA. D.

Kirshenblat, Ya. D. "On the helminthic fauna of the trans-Caucasian 'khomyak' (*Mesocricetus auratus brandti* Mehr.)", Uchen. zapiski (Leningr. gos. un-t im. Zhdanova), Biological sciences series, Issue 19, 1949, p. 110-27, - Bibliog: 8 items.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

KIRSHENBLAT, Ya. D.

PA 46/49T54

USSR/Medicine - Hormones
Medicine - Ovary, Hormones

Jan 49

"Action of Fish Hypophyseal Hormones on Female
Mammals," Ya. D. Kirshenblat, Inst of Obstetrics
and Gynecol, Acad Med Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXVI, No 4

Experiments convincingly showed that fish hypophyseal
hormones (carp, etc.) affect mammal ovaries. Carp
hypophyseal hormone contains not only a gonadotropic
factor acting similarly to follicle-stimulating
hormone in rats and mice, but also a second factor
which causes hypertrophy of ovaries in rabbits and

mice and hemorrhage of rabbit ovarian follicles.
Submitted by Acad L. A. Orbeli, 31 Mar 49.

46/49T54

KIRSHENBLAT, Ya.D.

Helminths parasitic on the Transcaucasian hamster (*Mesocricetus auratus brandti* Mehr.) Uch.zap.Len.un. no.101:110-127 '49.
(MLRA 10:3)

(Transcaucasia--Worms, Injurious and beneficial)
(Parasites--Hamsters)

YA.D
KIRSHENBLAT, F.D.

Localization of parasites in hosts. Usp.sovrem.biol. 29 no.2:
284-300 Mr-Apr '50. (CLML 19:2)

1. Leningrad.

KIRSHENBLAT, YA. D.

Beetles

New Palaearctic Staphylinidae (Coleoptera). Ya. D. Kirshenblat. Ent. ob. 31 No. 3-4, 1951.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

KIRSHENBLAT, YA. D.

GONADOTROPHIN

Neutral regulation of the gonadotropic secretion of the Hypophysis.
Usp. sovr. biol. 33 No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952, UNCLASSIFIED

CA

117

Action of steroid hormones on female *Megarrhinus foetalis*.
 Ya. D. Kuzhenblat (Acad. Med. Sci. S.S.S.R., Moscow).
Doklady Akad. Nauk S.S.S.R. 83, 629 (1962).—Intra-
 muscular injection was made of estrone (0.05-0.1), estradiol
 benzoate (0.5-5.0), methyltestosterone (1-15), testosterone
 propionate (1-20), ethynyltestosterone (1-15), progesterone
 (1), and deoxycorticosterone acetate (1 mg.) into
 females at IV stage of development (presence of numerous
 unripe oocytes). Estrone and estradiol benzoate failed
 to cause maturation of oocytes and ovulation. Methyl-
 testosterone caused maturation in almost all cases, and
 ovulation in 13 specimens out of 10. Neither testosterone
 propionate nor ethynyltestosterone caused any changes.
 Progesterone caused maturation of many oocytes of larger
 sizes and degeneration of many oocytes with rupture of
 follicles. Deoxycorticosterone acetate caused ovulation
 with or without maturation. Immersion of the specimens
 into media of methyltestosterone (5-20 γ /ml.) caused
 maturation of larger oocytes with the results being notice-
 able after at least 3-hr. exposure to the lower concn, and
 shorter periods for higher concns. G. M. Koudapoff

Inst. Obstetrics & Gynecology, AMS USSR

KIRSHENBLAT, Ya. D.

Pregnancy - Signs and Diagnosis

Spermatozoid reaction of toads and frogs and its application in the diagnosis of pregnancy . Usp. sovr. biol. 35, No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

KIBSHENBLAT, Yu.D., doktor biologicheskikh nauk.

Therapeutic action of cortisone. Priroda 42 no.9:108-110 S '53.

(MLA 6:8)
(Cortisone)

KIRSHENBLAT, Ya. D.

Chemical Abst.

Vol. 48 No. 6

Mar. 25, 1954

Biological Chemistry

The effect of sympathotrophic and paratrophic substances on ripening of the oocytes and on ovulation in fish. Ya. D. Kirshenblat. *Doklady Akad. Nauk S.S.S.R.* 93, 373-375 (1953).—Protein (5 mg./ml.) in the aq. environment of fish leads to rapid ripening of oocytes and ovulation in females; the larger are the specimens the greater is the necessary dosage. If the protein administration is simultaneous with that of acetylcholine (following physostigmine), pilocarpine, adrenaline, ephedrine, atropine, or nicotine, it was shown that subthreshold levels of protein led to ovulation and oocyte development; atropine and nicotine did not prevent the action of protein. Immersion of the fish in procaine soln. (0.5%) led to complete immobility, which was removed rapidly on reimmersion in H₂O. Immersion in procaine soln. contg. methyltestosterone (20 mg./l.) for 1 hr. following by ordinary H₂O, led within 48 hrs. to ovulation and laying of roe. If procaine was omitted no such ovulation took place. G. M. Kosolapov

Inst. Obstetrics + Gynecology, AMS USSR

KIRSHENBLAT, Ya.D.; SOLOV'YEV, V.S.

Hormonal therapy of disorders of the menstrual cycle. Akush.i gin.
no.2:27-32 Mr-Ap '54. (MLRA 7:6)

1. Iz Instituta akusherstva i ginekologii (direktor - deystvitel'nyy
chlen Akademii meditsinskikh nauk professor A.P.Nikolayev) Akademii
meditsinskikh nauk SSSR. (Menstruation) (Hormones)

KIRSHENBLAT, IA.

"Therapeutic action of cortisone" (p.79) PRIRODA
(Bulgaraska Akademiia Na Naukite) Sofiya Vol 3 No 1 Jan/Feb 1954

SO: East European Accessions List Vol 2 No 6 Aug 1954

KIRSHENBLAT, Ya.D.
KIRSHENBLAT, Ya.D.

Pathological changes in cells affected by intracellular parasites.
Trudy Len.ob-va est. 72 no.4:75-80 '54. (MLRA 8:11)

1. Institut akusherstva i ginekologii Akademii meditsinskikh nauk
SSSR, Leningrad
(Cells) (Parasites)

KIRSHENBLAT, Ya.D., professor (Chernovtsy)

Hormone diagnosis of pregnancy. IA.D. Kirshenblat. Fel'd. 1 akush
no.11:29-32 N '55. (MIRA 9:2)

(PREGNANCY-SIGNS AND DIAGNOSIS)

ENDOCRINOLOGIA Soc.3 Vol.10/8 Endocrinology Aug.56

1556. KIRSHENBLAT Ya.D. Leningrad. *Influence of the nervous system on ovarian activity (Russian text) USP.SOV.R.BIOL. 1955, 39/2 (183-195)

The view is expressed that there is at the present moment a sufficient number of concrete data which clearly show that ovarian changes occur under the influence of the CNS. Investigations in this field are as yet in an early stage and further studies have to furnish supplementary evidence of the role of the CNS in bringing about these changes and have to explain the biological significance for the organism.

Reprints - 000 (1955)

KIRSHENBLAT, Ya.D., professor (Chernovitsy)

Gonadotropic hormones. Probl.endok. 1 gorn. 2 no.6:108-116 M-D '56.
(MLRA 10:2)

(GONADOTROPINS, PITUITARY,
review (Rus))

KIRSHENBLAT, Ya.D.

~~Classification of certain biologically active substances produced~~
in the animal organism [with summary in German]. Trudy Len. ob-va
est. 73 no.4:225-228 '57. (MIRA 11:6)

1. Kafedra normal'noy fiziologii Chernovitskogo meditsinskogo
instituta.

(BIOLOGICAL CHEMISTRY)

BEKKER, S.M.; YEVDOKIMOV, A.I.; KIRSHENBLAT, Ya.D.; KONSTANTINOV, V.I.;
LEVI, M.F.; LUR'YE, A.Yu.; NIKOLAYEV, A.P., prof.; NOVOSEL'SKIY,
V.A.; PANCHENKO, N.A.; SHAGAN, B.F.; SYRKIN, M.M., red.;
OITSHTAYN, A.D., tekhnred.

[Practical obstetrics; selected chapters] Prakticheskoe akusherstvo;
izbrannye glavy. Kiev, Gos.med.isd-vo USSR, 1958. 565 p.

(MIRA 12:2)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for
Nikolayev).

(OBSTETRICS)

KIRSHENBLAT, Ya.D. (Chernovitsy)

Telergons and their biological significance. Usp.sovr.biol. 46 no.3
322-336 N-D '58 (MIRA 11:12)

(ANIMALS, HABITS AND BEHAVIOR OF)
(SECTION)

KIRSHENBLAT, Ya. D.

"The Effect of Gonadotropic Hormones and Cortisone on Pieces of Groundling Ovary in Vitro."

Theses of the Proceedings of the Annual Scientific Sessions 23-26 March 1959
// (All-Union Institute of Experimental Endocrinology)

From the Chair of Normal Physiology (Head--Professor Ya. D. Kirshenblat) of the Chernovtsy Medical Institute (Director--Docent M. M. Kovalev)

KIRSHENBLAT, Ya.D.

A new species of rove beetles (Coleoptera, Staphylinidae) with long
elytra. Ent. oboz. 38 no.3:649-651 '59. (MIRA 13:1)
(Borshomi District--Rove beetles)

KIRSHENBLAT, Ya.D.

Effect of cortisone on the ovaries in the pond loach. Biol. eksp.
biol. i med. 47 no.4:108-112 Ap '59. (MIRA 12:7)

1. Iz kafedry normal'noy fiziologii (zav. - prof. Ya. D. Kirshenblat)
Chernovitskogo meditsinskogo instituta (dir. - dotsent M.M. Kovalev).
Predstavlena deystvitel'nyy chlenom AMN SSSR A. P. Nikolayevym.

(CORTISONE, eff.

on ovaries in fish Misgurnus (Rus))

(OVARIES, eff. of drugs on,

cortisone, in fish Misgurnus (Rus))

KIRSHENBLAT, Ya.D., prof.

Telergic secretions; new information on biologically active substances.
Priroda 49 no.9:39-43 8 '60. (MIRA 13:10)
(SECRETION)

KIRSHENBLAT, Ya.D.; GRECHISHKINA, A.P. [Hrechyshkina, A.P.]; DOVGAN', Z.V.
SEMEN, N.P.

Inhibiting neural influences on the function of ovaries. Fiziol.
shur. [Ukr.] 7 no.1:54-60 Ja-F '61. (MIRA 14:1)

1. Department of Normal Physiology of the Chernovtsy Medical
Institute.

(OVARIES)

(NERVOUS SYSTEM, AUTONOMIC)

KIRSHENBLAT, Ya. D.

A new species of the genus *Lathrimaeum* Er. (Coleoptera, Staphylinidae) from Central Asia. Ent. oboz. 40 no.2:363-364 '61.
(MIRA 14:6)

(Soviet Central Asia—Rove beetles)

KIRSHENBLAT, Ya.D.

"Telergons" as a means of animals to influence the biotic factors
of the surrounding medium. Vop. skol. 4:35-36 '62. (MIRA 15:11)

1. Meditsinskiy institut, Chernovtsy.
(Zoology—Ecology) (Secretion)

KIRSHENBLAT, Ya.D.; GRECHISHKINA, A.P. [Hrechyshkina, A.P.]; SERBENYUK, V.N.
[Serbeniuk, V.M.]; CHIGRINA, Z.G. [Chyhrina, Z.H.]

Effect of the parasympathetic nervous system on the sensitivity of the
ovaries to hormones. Fiziol. zhur. [Ukr.] 8 no.4:524-531 J1-Ag '62.
(MIRA 18:4)

1. Kafedra normal'noy fiziologii Chernovitskogo meditsinskogo
instituta.

L 09084-67

ACC NR: AR6028023

SOURCE CODE: UR/0299/66/000/005/D003/D003

AUTHOR: Kirshenblat, Ya. D.

TITLE: Chemical substances for communication between animals

SOURCE: Ref. zh. Biologiya, Part I, Abs. 5D21

REF SOURCE: Sb. Biol. osnovy podrazhat. deyat-sti i stadm. form povedeniya. M.-L., Nauka, 1965, 40-43

TOPIC TAGS: animal physiology, biologic secretion

ABSTRACT: Substances secreted by animals into an external medium and serving to act on other organisms are called telergones and are products of the exocrine glands. They are divided into homotelergones, acting on individuals of the same species, and heterotelergones, acting on individuals of other species. On the basis of their biologic action homotelergones are divided into 5 groups. The biological significance of telergones is particularly important in communal insects and certain mammals. G. K. [Translation of abstract].

SUB CODE: 06

Cord 1/1 ^{bpp}

UDC: 591.5

KIRSHENSHTEYN, N. I.

Cand. Tech. Sci.

Dissertation: "Effect of the Antioxidants of the Secondary-Amines Class on Rubber Aging."
Moscow Inst of Fine Chemical Technology imeni M. V. Lomonosov, 15 Sep 47.

SO: Vechernyaya Moskva, Sep, 1947 (Project #17836)

S/138/60/000/003/006/007
A051/A029

AUTHORS: Lavrent'yeva, T.L.; Molodtsova, L.S.; Kirshen'shteyn, N.I.; Trum-
bachev, V.F.

TITLE: The Polarization-Optical Method for Investigating Tensions in Sealing Parts

PERIODICAL: Kauchuk i Rezina, 1960, No. 3, pp. 37 - 40

TEXT: The distribution of stress in rubber sealing parts was studied by experiment. If the magnitude and distribution of the stress is known, new parts can be designed on a scientific basis and the existing models can be investigated. The applied polarization-optical method helps to investigate the stress distribution and magnitude depending on the size and shape of the part. References 3, 4 and 5 give details of this method. It is based on the fact that most transparent isotropic materials acquire under stress the property of double refraction, the magnitude of which is connected with the magnitude of the tension and can be measured with an optical apparatus. It is established that the difference of the velocities, and, therefore, the optical difference of the beam's path G , is proportional to the difference of the main normal tensions ($\sigma_1 - \sigma_2$). The

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S/138/60/000/003/006/007
A051/A029

The Polarization-Optical Method for Investigating Tensions in Sealing Parts

following formula was derived: $\Delta = cd(\sigma_1 - \sigma_2)$, where c is the optical constant of the material, determined experimentally, d is the thickness of the model. The authors made a study of the state of stress under different pressures of the medium depending on the design of the sealing and landing space and on the size and strength of the bracelet springs. Models made of optically-active material, i. e., igdantine prepared on a gelatin and glycerol base, were studied. The procedure is explained in detail and diagrammatic sketches of the parts studied are submitted. Figure 4 represents a diagram of the distribution of tangent tensions in the stuffing box at a pressure of 0.5 atm of the medium. Figure 5 shows the tangent tensions distributed in the stuffing box at a medium pressure of 1.5 atm. The experimental results are only preliminary, since it was impossible to produce a force in the models, which would simulate the tension at a significant pressure of the medium (1 atm or more). However, the results show the effectiveness of using the discussed method in designing sealing units. There are 5 diagrams, 1 table and 7 references: 6 Soviet and 1 English.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry)

Card 2/2

37180

S/138/62/000/004/008/008
A051/A126

15.9300

AUTHORS: Zuyev, Yu.S.; Kirshenshteyn, N.I.; Matveyev, A.A.

TITLE: Rupturing machine with contactless measurement of deformation and automatic tension recording

PERIODICAL: Kauchuk i rezina, no. 4, 1962, 44 - 47

TEXT: Machines for automatic measurement of deformation used at the present time are said to have the following shortcomings: In all cases the measurement between the clamps does not correspond to the deformation of the working section for which the tension in expansion is being measured. An American patent with additional attachment for recording the expansion of the working section is also mentioned as having not given positive results. The Scientific Research Institute of the Rubber Industry has designed an instrument with automatic recording of force and distance between the indications of the working section. The instrument makes it possible to simultaneously measure and test two samples within a wide temperature range. Its dimensions do not depend on the number of samples tested. The introduction of a second parallel line for recording the magnitude of force on the second sample, is the only complication in the instrument (Fig.

Card 1/4

Rupturing machine with contactless

S/138/62/000/004/008/008
A051/A126

1). The ПСР-1 (PSR-1) potentiometer is used as the registering device of the tension balance discord. Measurements of the working section length of the tested sample, under action of expansion force, are recorded on a "Kiyev 16 C-2" (16S-2) movie camera film. The latter has a filming speed of 16 to 64 frames per second, or can be used for single shots. Figure 2 represents the diagram of the electrical system of the special device for recording the relative elongation. ДТЛ-27 (DGTs-27) semiconductor diodes are used. The device which records the curve, load-moment of time, corresponding to the filming of the given frame, has a mobile recorder ПСР-1 (PSR-1), registering the deformation load, and is supplied with a light-weight electromagnet which removes the recorder from the paper when disconnected, thus creating an intermittent line instead of a solid one. The electromagnet is connected through the time relay 3В-234 (EV-234) by the collector which cuts in the lock of the movie camera. The average quadratic error of measurement when calculating the rupturing tension of the instrument, within a temperature range of from 20 to 100°C, is 9.7%. There are 2 figures and 11 references: 8 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry)

Card 2/4

Rupturing machine with contactless ...

Figure 1: Block Diagram of the Apparatus for testing rubbers in expansion:

- 1 - cylinder;
- 2 - panel;
- 3 - lower clamp;
- 4 - upper clamp;
- 5 - traction;
- 6 - lower spring;
- 7 - double-spring rod;
- 8 - upper spring;
- 9 - upper traction;
- 10 - motor;
- 11 - pulleys;
- 12 - worm gear;
- 13 - prisms;
- 14 - clamps;
- 15 - tested sample;
- 16 - thermo-chamber;

Card 3/4

